REMARKS

Claims 1 and 3-10 are pending in the instant application. Claims 1 and 3-10 stand rejected under 35 USC §103(a) as being unpatentable over Rose *et al*, 6015565, in view of Pines *et al*, 6426058. None of the claims have been amended. Reconsideration is respectfully requested.

Claims 1 and 3-10 stand rejected under 35 USC 103(a) as being unpatentable over Rose *et al*, 6015565, in view of Pines *et al*, 6426058. This rejection is respectfully traversed.

Claims 1 and 10 of the present invention are directed to an *in vitro* method which is a test involving a reaction of one or more biological molecules. The methods of claims 1 and 10 include the steps of:

labeling one of the biological molecules with hyperpolarized ^{129}Xe, wherein an assay reagent includes the biological molecule;

conducting the reaction; and

observing the magnetic resonance (NMR) spectrum and/or NMR image of the hyperpolarized ^{129}Xe during the course of said reaction in order to detect any conformational change in the labeled biological molecule.

Rose discloses combining of a pharmaceutical candidate with glycoprotein B and thereafter detecting whether the pharmaceutical candidate has bound to the active site of glycoprotein B and inducing a functional change in glycoprotein B. Rose discloses different methods for carrying out the detection step, e.g. that binding of the candidate to the

glycoprotein B may be observed as a conformational change, which may be detected using nuclear magnetic resonance (NMR). Rose does not disclose that the NMR spectrum and/or image is observed during the course of the reaction between the candidate and glycoprotein B, as would be required if either of the methods of claims 1 or 10 of the present invention were being used. The detection step of Rose is temporally separate to the reaction itself whereas in claims 1 and 10 of the present invention, the detection step takes place at the same time as, or during the course of, the reaction.

Pines teaches the use of ^{129}Xe to enhance NMR detection by transfer of polarization from ^{129}Xe to NMR active nuclei in a sample being analysed. There is nothing in Pines to suggest observing the NMR spectrum and/or image during the course of the reaction, as required by claims 1 and 10 of the present invention.

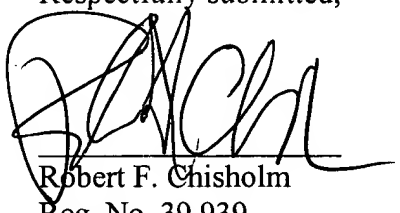
Applicants therefore submit that, as both Rose and Pines, alone or in combination, fail to disclose, teach, or suggest the monitoring of a reaction as is presently claimed, the present invention is patentably distinct thereover.

Claims 3-9 also stand rejected under 35 USC 103(a) as being unpatentable over Rose *et al*, 6015565, in view of Pines *et al*, 6426058. As all of these claims are dependent on allowable claim 1, this rejection is respectfully traversed on the basis of the argumentation used above for claim 1. Applicants therefore submit that claims 3-9 are inventive over Rose in view of Pines. Reconsideration and withdrawal of the rejection are respectfully requested.

In view of the foregoing remarks, Applicants respectfully submit that the instant application, including claims 1 and 3-10, is in condition for allowance. Favorable action thereon is respectfully requested.

Any questions with respect to the foregoing may be directed to Applicants' undersigned counsel at the telephone number below.

Respectfully submitted,



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